REMARKS/ARGUMENTS

Claims 1, 2, 4-7 and 10-13 are presented for examination. Claims 3, 8 and 9 are canceled.

Applicants hereby acknowledge that the Restriction Requirement issued in the office action dated September 27, 2004 has been withdrawn by the Examiner, on the ground that all of the claims have been examined in the parent application, and that all of the claims have been rejoined.

The present application is a divisional of U.S. Serial No. 09/791,227, now U.S. patent No. 6,635,643 B2. In the Preliminary Amendment dated August 19, 2003 (filed concurrently with the divisional application) applicants amended claims 1, 4, 5, 7 and 10-12, canceled claims 3, 8 and 9 and added new claim 13. Applicants' remarks, therefore, are based upon the claims as filed in the divisional application.

Claims 3-8 and 10-12(13) are rejected under 35 U.S.C. 101 on the ground that identical claims have been issued as claims 1-6, and 8-10 of US patent No. 6,635,643. As indicated above, Applicants filed a Preliminary Amendment with the divisional application filed on August 19, 2003 in which claims 1, 4, 5 and 7 were amended and claims 3, 8 and 9 were canceled. In claim 1 in the '643 patent the substituent $-OR^4$ "is situated at the 4- position of the central piperidine moiety". In the Preliminary Amendment the $-OR^4$ substituent "is situated at any position of the central piperidine moiety other than the 4- position". Since the remaining claims are either dependent on or refer to claim 1, it is submitted that the claims presently submitted for examination are not identical to the claims issued in the '643 patent. For clarification claims 10-12 have been amended to clearly recite same.

Reconsideration of the rejection of claims 3-8 and 10-12(13) under 35 U.S.C. 101 is courteously requested.

Claims 1-12(13) are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 and 8-10 of U.S. patent No. 6,635,643. The Examiner has concluded that the instant claims include compounds wherein $-OR^4$ is in both the 3- and the 4- position of the piperidine moiety and therefore "fully embrace" the claims in the issued patent. As indicated above, the claims as amended in the Preliminary Amendment clearly exclude compounds wherein the $-OR^4$ substituent is in the 4- position of the piperidine ring. The instant compounds, therefore, do not embrace the claims of the issued patent.

Reconsideration of the rejection of claims 1-12(13) under the judicially created doctrine of obviousness-type double patenting is courteously requested.

Claims 1-12(13) are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Daele *et al.*, U.S. 5,374,637, in view of CA 129 (ES patent date 1997) and CA 123, as supplemented with CA 131 (showing 5HT4 is for colon activity). In the office action it is stated that the difference between Van Daele *et al.* ('637) and the instant claims is that the instant claims are drawn to compounds having a methylene moiety inserted between the amido linker and the piperidine ring. It is then concluded that CA 129 and CA 123, as supplemented with CA 131, are analogous art since they

"all disclose similar compounds for 5HT gastrointestinal activity". Applicants take exception to this conclusion. The counterpart to CA 123 is U.S. Patent No. 5,374,637 in which only compounds wherein the amido linker is linked directly to the piperidine ring are disclosed. CA 129 has a publication date of 1998 (the publication date of the corresponding patent ES2103675 is September 16, 1997) while CA 131 has a publication date of 1999. Applicants' have claimed priority of EP application 97/2021802 which was filed on July 11, 1997. It is submitted that CA 129 and CA 131 are not valid references against applicants' claims since they were published after the priority date of applicants' application. The compounds in question, therefore, are not analogous to the compounds disclosed in the '637 patent. It is submitted that the insertion of a methylene group between the amido linker and the 4-piperidine ring is not deemed to be obvious in view of the '637 patent since applicants' compounds are not adjacent homologs of the compounds disclosed in the '637 patent. It should also be noted, in addition, that there is no way to predict the effect on the activity of a given compound when a methylene group is placed between a reactive amido link and a 4-piperidine ring. It is submitted that applicants' claimed compounds are not obvious over any combination of the cited references.

Reconsideration of the rejection of claims 1-12(13) under 35 U.S.C. 103(a) as being unpatentable over Van Daele *et al.*, U.S. 5,374,637, in view of CA 129 and CA 123 as supplemented with CA 131 is courteously requested.

Claims 1-12(13) are rejected under 35 U.S.C. 103(a) as being unpatentable over King *et al.* (U.S. patent No. 6,172,379) in view of CA 129 and CA 131 and further in view of Van Daele *et al.* (U.S. 5,374,637) vs Van Daele *et al.* (U.S. 5,948,794).

Applicants' attorney was unable to locate U.S. patent No. 6,172,379 (King *et al.)* cited in the office action. In the Notice of References attached to the office action the Examiner listed the King *et al.* patent as U.S. 6,127,379. Applicants' attorney assumes that the number 127 was intended to read 172. Applicants' remarks, therefore, are based on the disclosure in patent No. 6,127,379. The '379 patent claims benzopyran, benzothiopyran and benzofuran derivatives as 5HT4 antagonists. Applicants' claimed compounds are bicyclic benzamides of 3- or 4- substituted 4-(aminomethyl)-piperidine derivatives. It is submitted that the benzopyran and benzothiopyran compounds disclosed in the reference are clearly not structurally analogous to applicants' claimed bicyclic benzamido derivatives. In the case where in the generic structure in the '379 patent X_1 is O, x is 1, Y is NH- and z is a piperidinyl moiety, the resulting compound is not analogous with applicants' compounds because there is no methylene group between the piperidinyl moiety and the amide. The Examiner has indicated that it would be obvious to place the $-OR^4$ substituent in applicants' claimed piperidine derivatives on the unsubstituted piperidine ring of the reference compounds. In view of the numerous compounds covered by the generic structure in King *et al.* it is submitted that it would not be obvious to one skilled in the art to choose the piperidine ring out of the multitude of possible ring systems covered by the generic structure and place an $-OR^4$ substituent on the piperidine ring. As indicated above, the CA 129 and CA 131 references cited by the Examiner in conjunction with the King *et al.* reference are invalid references since they were published after applicants' priority date. Applicants have discussed the merits of

the'637 patent above. It is submitted that Applicants' claimed compounds are not obvious over any combination of the cited references.

Reconsideration of the rejection of claims 1-12(13) under 35 U.S.C. 103(a) as being unpatentable over King *et al.* (U.S. patent No. 6,172,379) in view of CA 129 and CA 131 and further in view of Van Daele *et al.* (U.S. 5,374,637) vs Van Daele *et al.* (U.S. 5,948,794) is courteously requested.

In the office action, it is indicated that the prior art made of record but not relied upon is considered pertinent to applicants' disclosure. Applicants' attention is directed to U.S. 6,172,062 and in the office action it is concluded that structurally close compunds are disclosed therein "without the -OR^4 substituent together with more limited sulfonyl linked substituents for L". Applicants' wish to point out that the effective filing date for the '062 patent is September 10, 1998. As indicated above the priority date for applicants' application is July 11, 1997. The '062 patent, therefore, is not a valid reference against applicants' claimed compounds.

In view of the above discussion it is believed that all of the outstanding objections and rejections have been removed.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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